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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/823,679	04/14/2004	Ryuzo Ueno	Q81097	4883
23373	7590	08/23/2007		
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER CHAWLA, JYOTI	
			ART UNIT 1761	PAPER NUMBER
			MAIL DATE 08/23/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/823,679	Applicant(s) UENO ET AL.	
	Examiner Jyoti Chawla	Art Unit 1761	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/25/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

Applicant is advised that should claims 1-4 be found allowable, claims 10-13 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). The recitation of "whipping cream" in claim 1 and "improved whipping cream" in claim 10 does not alter the product as recited in claims 1 and 10 respectively.

Claim 9 is objected to because of the following informalities:

The claim as recited states "the method of any one of claims 6" which appears to be a typographical error. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 is indefinite for the recitation of "comprising 55-100 wt % of .alpha.-D-glucopyranosyl-1,6-sorbitol on a dry weight basis". Claims 6 and 10 are indefinite for the recitation of "comprising 55-100 wt % of .alpha.-D-glucopyranosyl-1,6-sorbitol on a dry weight basis to a cream product". It is unclear from the claims as recited, whether proportion of alpha.-D-glucopyranosyl-1,6-sorbitol (i.e., 55-100%) is based on the entire composition of the cream product or it is based on the entire sweetener composition or

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based on the sugar alcohol part of the sweetener composition. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Determining the scope and contents of the prior art.

Ascertaining the differences between the prior art and the claims at issue.

Resolving the level of ordinary skill in the pertinent art.

Considering objective evidence present in the application indicating obviousness or nonobviousness.

(A) Claims 1-3, 5-8, 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schieweck et al (US 3865957) in view of Goldscher (US 5679781).

Regarding claims 1, 2, 6, 7 and 10, 11, Schieweck et al, hereinafter Schieweck, teaches that crystalline isomaltitol is very effective as a low calorie sweetener having the appearance and the utility of sugar. The reference also teaches that isomaltitol can be mixed with other synthetic sweeteners and can be added to everyday recipes in the same amount as sugar (Column 2, lines 20-50 and 65-68). Schieweck teaches of an ice cream, i.e., a sweet cream based composition that is beaten or whipped or aerated before the freezing step. Schieweck teaches of adding isomaltitol to the ice cream to reduce calories. The mixture as taught by Schieweck is homogenized, sterilized, stirred vigorously and beaten (i.e., whipped or aerated) prior to freezing (Column 4, lines 25-

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40, example VIII). It was known in the art at the time of the invention that Isomaltitol comprises of alpha-D-glucopyranosyl-1,6-sorbitol (GPS or GPS-1, 6 or GPS-6) and alpha-D-glucopyranosyl-1,1-mannitol (GPM or GPM-1, 1 or GPM-1). Thus Schieweck teaches of an aerated sweet cream based product and process of making the product, where the sweetening agent is a sugar alcohol, i.e., isomaltitol, which comprises alpha-D-glucopyranosyl-1,6-sorbitol (GPS or GPS-1, 6 or GPS-6) as recited by the applicant in claim1-13.

Schieweck reference is silent as to the proportion of two isomers of isomaltitol namely, alpha-D-glucopyranosyl-1,6-sorbitol (GPS or GPS-1, 6 or GPS-6) and alpha-D-glucopyranosyl-1,1 mannitol (GPM or GPM-1,1 or GPM-1). Goldscher teaches that Isomaltitol, a sugar alcohol, can be made to achieve various ratios of the two isomers alpha-D-glucopyranosyl-1,6-sorbitol (GPS or GPS-1, 6 or GPS-6) and alpha-D-glucopyranosyl-1,1 mannitol (GPM or GPM-1,1 or GPM-1). Goldscher teaches of the process with which isomaltitol can be obtained, where the isomaltitol GPM:GPS ratio can be varied from 38:62 to 62:38 by weight. Goldscher further teaches GPS-6 or GPS levels of 55% or above (Column 1, lines 50-58; Column 2, lines 18-25; Column 3-4 examples 1 and 6), as recited by the applicant in claims1, 6 and 10. Goldscher also teaches that the low calorie sugar alcohol based sweetener containing GPS-6 (liquid or crystalline) was used in candies, ice-creams, milk products, baked goods, preserved foods and also as a carrier for artificial sweeteners (Column 3, lines 20-33).

Isomaltitol, a sugar alcohol, was known in the art as a reduced calorie sweetener and filler either alone or in combination with other artificial sweeteners (Goldscher and Schieweck). Isomaltitol with a GPS ratio of 55% or above was also known in the art (Goldscher, Column 1, lines 50-58; Column 2, lines 18-25; Column 3-4 examples 1-6). Aerated cream and milk-based products, such as creams, ice creams, etc., made with isomaltitol comprising (GPS-6) were also known in the art (Schieweck) at the time of the invention. Further it has been known in the art that of the two isomers of Isomaltitol, GPS is more soluble as compared to GPM, which crystallizes quickly out of foods owing to its lower solubility. Therefore, it would have been obvious to one of ordinary skill in

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the art at the time of invention to modify Schieweck, and add isomaltitol comprising a higher proportion of GPS-6 component as taught by Goldscher, in order to make the aerated or whipped sweet cream based product (i.e., ice-cream or whipped cream etc.) with a low calorie sweetener that provides a good initial sweet flavor owing to its higher solubility. One would have been further motivated to do so in order to provide good texture, and mouth feel to the products with the long lasting sweet effect.

Regarding claims 2, 7 and 11, Schieweck teaches of isomaltitol which comprises of alpha-D-glucopyranosyl-1,6-sorbitol (GPS or GPS-1, 6 or GPS-6) and alpha-D-glucopyranosyl-1,1-mannitol (GPM or GPM-1, 1 or GPM-1) as discussed above. Goldscher teaches of the process with which isomaltitol can be obtained, where the isomaltitol GPM:GPS ratio can be varied from 38:62 to 62:38 by weight. Thus Goldscher teaches of GPS-6 or GPS levels of 55% or above (Column 1, lines 50-58; Column 2, lines 18-25; Column 3-4 examples 1 and 6), and alpha-D-glucopyranosyl-1,1 mannitol (GPM or GPM-1,1 or GPM-1) in proportion of 0-45% can be obtained, as recited by the applicant in claims 2, 7 and 11. Thus Schieweck in view of Goldscher teaches of GPM in the instantly claimed proportion in the sugar alcohol recited.

Regarding claims 3, 8, and 12, Schieweck teaches of an the ice cream composition comprising:

Sweet cream	= 22.1 Kg (40% fat)
Whole milk	= 58.1 Kg (3.7% fat)
Skimmed milk powder	=4.5 Kg
Stabilizer	=0.3 Kg
Isomaltitol	=15 Kg
Total (by weight)	=100 Kg
% of sugar alcohol (isomaltitol)	=15%

The amount of sugar alcohol taught by Schieweck falls within the recited range of the applicant for claims 3, 8 and 12.

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Regarding claim 5, Schieweck teaches of a vigorously stirred, and beaten(aerated or whipped) cream based product as instantly claimed.

Claims 1-3, 5-8, 10-12 have been rejected over Schieweck in view of Goldscher.

(B) Claims 4, 9, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schieweck in view of Goldscher as applied to claims 1-3, 5-8,10-12 above, and further in view of Getz(US 2435682)

Schieweck in view of Goldscher have been applied to claims 1-3, 5-8, 10-12 above.

Schieweck in view of Goldscher teaches of an ice cream composition with crystalline isomaltitol comprising GPS-6, as a low calorie sweetener as discussed above.

Schieweck teaches of an ice cream composition, i.e., sweet cream based aerated composition, with sugar alcohol in the range recited by the applicant as discussed above. Regarding the amount of fat and oil fraction as recited in claims 4, 9 and 13, Schieweck teaches of 22.1 Kg sweet cream containing 40% fat, i.e., 8.84 kg fat. The reference further teaches of 58.1 kg whole milk with 3.7% fat, i.e., 2.15 kg fat. Thus the total fat content of the ice-cream composition as taught by Schieweck is 10.99 or about 11 kg, which is 11% by weight. Thus the fat content of the aerated composition as taught by Schieweck is less than the fat content recited by the applicant in claims 4, 9 and 13. However, aerated or whipped cream compositions with fat content in the range recited by the applicant were known in the art at the time of the invention. Getz teaches that whipping cream is known to have a fat content of 33-35% (Column 1, lines 32-35) which falls within the recited range of the applicant. Thus it was known at the time of the invention to have whipping creams or milk based whipping or whipped compositions with a fat-or-oil fraction of 25-55% as taught by Getz. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Schieweck further and include a higher proportion of cream in the aerated ice-cream product in order to make the whipped cream based confection more smooth and creamy. One would have also been motivated to do so in order to make the finished product calorie dense with a better mouth feel.

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Therefore, claims 4, 9 and 13 have been rejected over Schieweck in view of Goldscher, further in view of Getz.

Conclusion

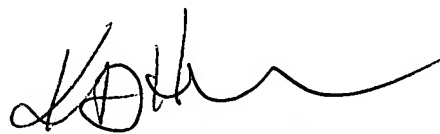
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jyoti Chawla whose telephone number is (571) 272-8212. The examiner can normally be reached on 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jyoti Chawla
Examiner
Art Unit 1761



KEITH HENDRICKS
PRIMARY EXAMINER